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ANOTHER PEZIZA.

Arthur L. Smith.

Peziza repanda Wahl. is a small, rather inconspicuous fungus growing on old wet logs. Specimens were found May 11, 1906, on an old elm log in the O. S. U. woods. In the dark, moist woods, one sees only a group of light, fleshy fungi; but taken out into the sunshine, they become remarkably beautiful objects. The cups are translucent, and the sunshine gives them a delicate golden brown. This, with the purplish brown color of the dry cup rims, produces an effect highly artistic.

When first distinguishable, the future cup is a tiny white knot on the surface of the log. This grows, so that soon a hollow sphere, with an

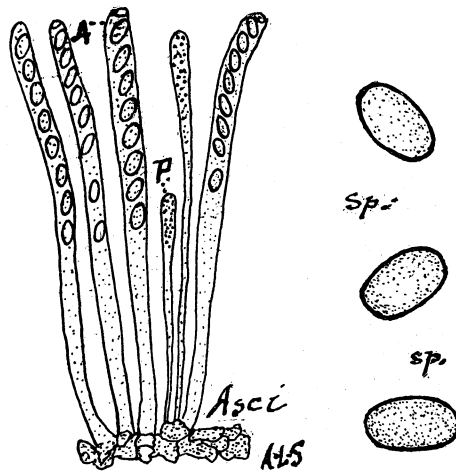


Fig. 186. PE-ZI'-ZA RE-FAN'-TA. Magnified sketch of a portion of the fruiting layer (inner portion of cup)—showing *asci* accompanied with *paraphyses* and three spores very highly magnified.

opening at the top, is produced. But soon this begins to flatten and expand laterally, at last producing an irregular flattened disk with small upturned edges. The disks are irregular in outline. In diameter they vary from 2—6 cm. On the outside of the cup is a scurfy white layer. The remainder is a fleshy tint. In drying the tissue becomes darker, and may even reach a purplish brown. The exposed edges dry out and change color first, then later the whole plant goes through the same change.

There are two primary layers in the structure of the *Pezizas*; the inner fruiting layer or hymenium, and the outer sterile tissue. This latter is composed of several more or less distinct parts, whose names would only add to our burden. On the arrangement and structure of these sterile layers, the classification is largely based. E. J. Durand, of Cornell, the authority on fleshy *Discomycetes*, has largely extended the use of these characters.

On the hymenial surface are borne the *asci*, or large mother cells of the spores, and a few sterile *paraphyses*, or accessory hairs. In these specimens the latter are few, very much less numerous than in the other

Pezizas examined. They are also shorter than the average of other species. The asci are quite large, 270×12 mic. In each are eight spores, which are discharged when ripe, at the free end. These spores are smooth, thin-walled, hyaline, and non-nucleate. Size 14×9 mic.

Some young specimens observed from May 11 to May 25 discharged spores during that time. The spores are often seen as little white clouds hanging above the cups. This phenomenon was often seen several times daily during the whole period. The immense number of spores given off by each *Peziza* can be more easily imagined than expressed.

Explanation of the figures.—The half-to-re fig. 185 represents several plants natural size. Two above are immature—the cups scarcely open. The others show various forms assumed on maturity. Fig. 186 gives in outline, much magnified, several asci with spores, intermingled with which are two paraphyses; three spores are shown still more highly magnified.

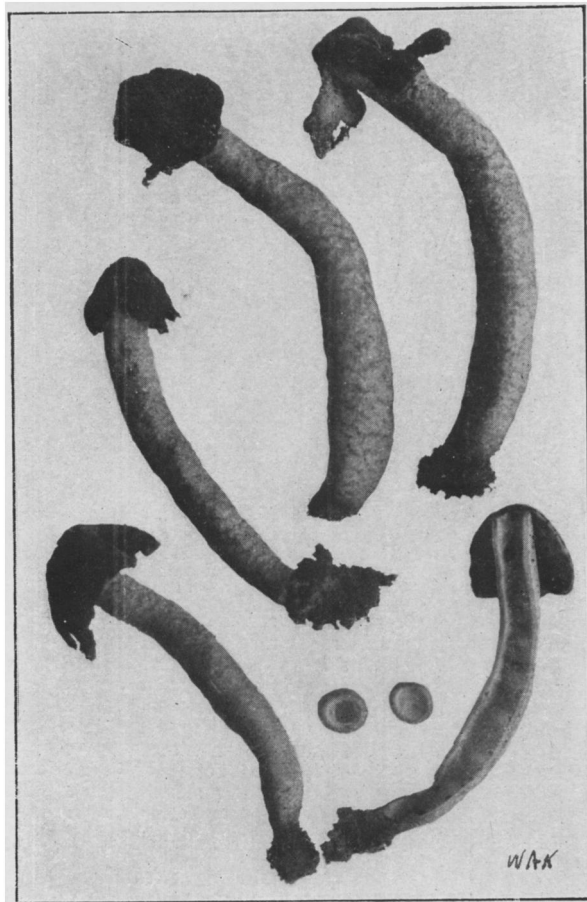


Fig. 187. *VERPA DIGI-TAL-I-FOR-MIS*. Photo from specimens collected at Lancaster, Ohio, by Miss Hyde. See text for fuller explanation.